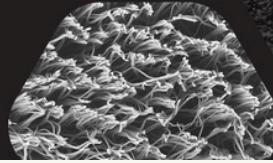


# Build composites from emissions.

carbonova

Carbon simplified.

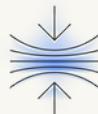
At Carbonova, we rebuild emissions into advanced carbon nanomaterials that make composites lighter, stronger, and more sustainable –accelerating the shift to ecofriendly plastics.



## Our product



**>60%**  
Increased elongation to break



**>15%**  
Increased ultimate tensile strength



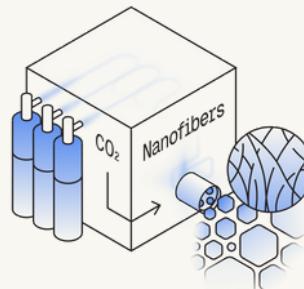
**>2.5**  
Times higher toughness over comparable nano carbon filled composites



**1.5 tonnes**  
CO<sub>2</sub> reduction (avoidance) for every tonne of plastic



Manufacturing facilities  
GHG captured at site

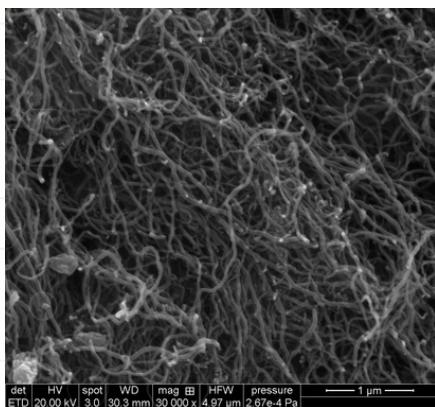


**Our technology**  
Converts GHG to advanced carbon nanomaterials



**Carbon reinforced plastics**  
Our material integrates into your product for enhanced performance

## Properties



**Easy integration**  
Dispersed through conventional masterbatch production

**Production runtime reduction**  
Lower viscosity and easier mold filling

**Luxury jet-black finish**  
Maintains high aesthetic quality and texture

**Increased thermally stability**  
Decreased polymer degradation at elevated temperature

**Increased conductivity**  
Improved electrostatic discharge properties

**Up-to 100% recycled content**  
Increased recycled content without performance compromise

# More about our product

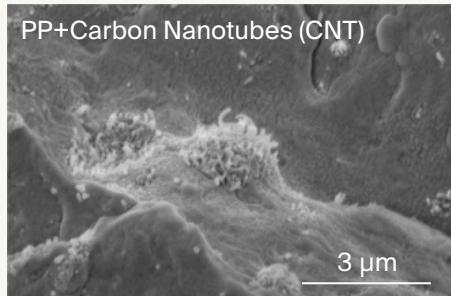
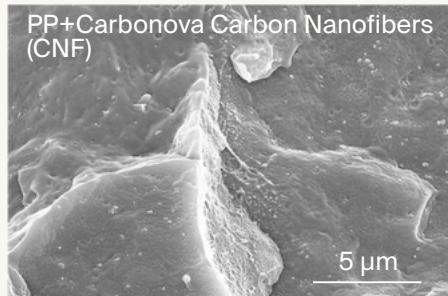
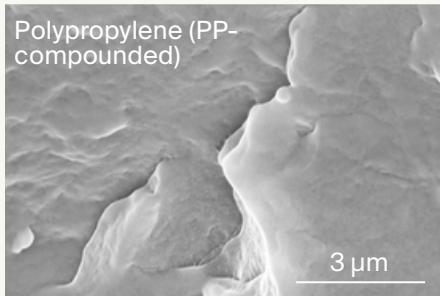
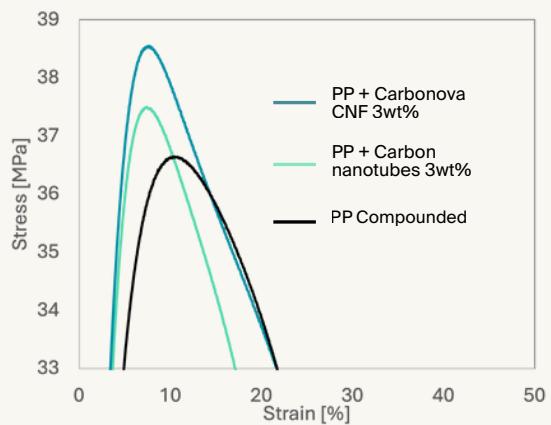
## Ease of dispersion

Carbonova CNF **disperses easily** with standard polymer mixing equipment

No visible clusters of CNF within polypropylene mix

**Increases tensile strength** and Young's Modulus

**Low compromise to elongation** and ductility



## Thermal stability enhancement

**Increases the PCR thermal stability**

Adding 1-10 wt% CNF **delays polymer breakdown by 50-65°C**

Eliminates the need to over design parts at elevated temperature

Post consumer recycled Polypropylene (PCR)	T Onset (°C)	Change in T Onset (°C)
PCR Compounded	374	N/A
0.1 wt% CNF in PCR	387	13
1 wt% CNF in PCR	425	51
3 wt% CNF in PCR	431	57
10 wt% CNF in PCR	439	65

## Enhanced flow properties

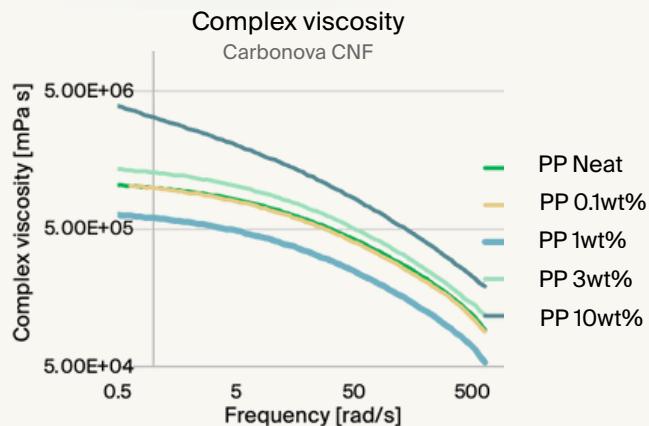
**Reduced melt viscosity** at lower CNF loadings

**Increased flowability** into molds

Up to **20% reduction** in cycle fill rates and **10% reduction** in total cycle time

**Improved surface quality** & finishes

Ideal for thin wall packaging and small/complex parts



Let's reshape the climate narrative, together – reach out today.

Follow for updates



[carbonova.com](http://carbonova.com)

(587) 358-0927

[info@carbonova.com](mailto:info@carbonova.com)

Based in Calgary, AB